

instead of being bowed backwards; the supraorbital rims are more developed (though still small for so large an animal), and are continued along the parietals to the outer corners of the intermaxillary. Anterior edge of anteorbital plate more slanting. Posterior nares wider and more open than in the allied form. Incisors broad, pale yellowish, finely but irregularly striated in front.

Dimensions of the type (an adult female in skin):—

Head and body (probably stretched) 310 millim.; tail 290; hind foot (moistened) 60*.

Skull: basal length 51·3; greatest breadth 27·4; nasals $23 \times 5\cdot6$; interorbital breadth 8·2; breadth of brain-case 21·3; interparietal $7 \times 16\cdot2$; palate length from henselion 26; diastema 17; anterior palatine foramina $10\cdot6 \times 4$; length of upper molar series 9·1.

Hab. Kuatun, N.W. Fokien.

Type: B.M. no. 97.6.6.2.

This fine rat is evidently very closely allied to *Mus Bowersi*, which is a native of Burma and Tenasserim, and is therefore widely distinct from it geographically. It differs, however, by its rather larger size, especially its longer hind feet, and by the various cranial differences above enumerated.

It is named in honour of Mr. J. de La Touche, of Foochow, to whom, in conjunction with Mr. Rickett, the British Museum is indebted for a considerable number of valuable Chinese mammals. Among these may be specially mentioned examples of the rare *Typhlomys cinereus*, M.-Edw., specimens which have enabled me for the first time to show the proper position of this interesting genus †.

BIBLIOGRAPHICAL NOTICE.

Ueber die Palpen der Rhopaloceren. Ein Beitrag zur Erkenntnis der Verwandtschaftlichen Beziehungen unter den Tagfaltern. Von ENZIO REUTER. (Acta Societatis Scientiarum Fennicæ, tom. xxii. No. 1.) (Helsingfors, 1896.)

THE early writers on insects used to complain that the Order Lepidoptera was one of the most difficult of all to classify, on account of the deficiency of characters. But with the increase of our know-

* The two other specimens have hind feet 57·5 and 58 millim. long. Three spirit-specimens of *M. Bowersi* in the Fea collection have feet respectively 51, 51, and 52 millim. in length.

† P. Z. S. 1896, p. 1016.

ledge we find that characters abound, and it is now rather a question of the real value to be attached to the structure of different organs than a matter of complaint that characters cannot be found. Nor shall we arrive at a really satisfactory system of classification of Lepidoptera until the structure of the principal organs has been worked out in all the various stages of the insects; and this is a lifelong study for a great number of observers.

The author of the present treatise has directed his attention chiefly to the structure of the palpi in butterflies, paying special attention (1) to the outward structure and form, (2) to the hairy or scaly clothing of the palpi, and (3) to the basal spot, which is a bare space on the inner side of the basal joint, which is striated, pitted, and set with numerous conical hair-scales. For the purposes of the present work 3557 palpi have been examined, belonging to 670 species and 302 genera, the result of this long and patient study being embodied in the elaborate treatise before us. It is illustrated by 6 plates, the first five representing structural details and the sixth containing a genealogical tree of the evolution of the Lepidoptera. The *Hesperiidae* are regarded as a distinct suborder from the Rhopalocera, under the name of Gypocera, which is certainly an improvement on the more usual course of treating them as an aberrant family of the latter.

The first portion of the work consists of a description of the general form and clothing of the palpi under the various genera, and especially of the basal spot; the description of the latter sometimes exceeds in length that of all other structures noticed. Having concluded this, the author generalizes his results, and discusses the comparative relations of the various families and smaller subdivisions which he admits. Here his observations are not confined to the palpi, but extend to the neurulation and other morphological characters of the insects; and he shows himself to be thoroughly acquainted with the extensive and not always easily accessible literature of the Order Lepidoptera, and compares his own conclusions with those of other writers to great advantage.

This is followed by general observations on the origin and classification of the Lepidoptera, not without reference to palaeontological considerations; and by an extensive Bibliography, filling 11 closely printed pages.

We congratulate the author on the completion of a valuable and meritorious work, which marks an epoch in the study of the particular structures to which it is devoted. Much good work has previously been accomplished in Finland in other orders of insects; and the Finns are fully entitled to claim as high a rank as entomologists as they have long occupied as philologists.